

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
28 July 2005 (28.07.2005)

PCT

(10) International Publication Number
WO 2005/068061 A1

(51) International Patent Classification⁷: **B01F 7/16**,
B02C 13/14, 19/06, B04B 5/12, C02F 1/38, F26B 11/14,
B09B 3/00

(21) International Application Number:
PCT/AU2005/000037

(22) International Filing Date: 14 January 2005 (14.01.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2004900217 16 January 2004 (16.01.2004) AU

(71) Applicant (for all designated States except US): **AD-
VANCED GRINDING TECHNOLOGIES PTY
LIMITED** [AU/AU]; c/o Phillips Fox (c/o Robert Allen),
Level 47, 120 Collins Street, Melbourne, Victoria 3000
(AU).

(72) Inventors; and

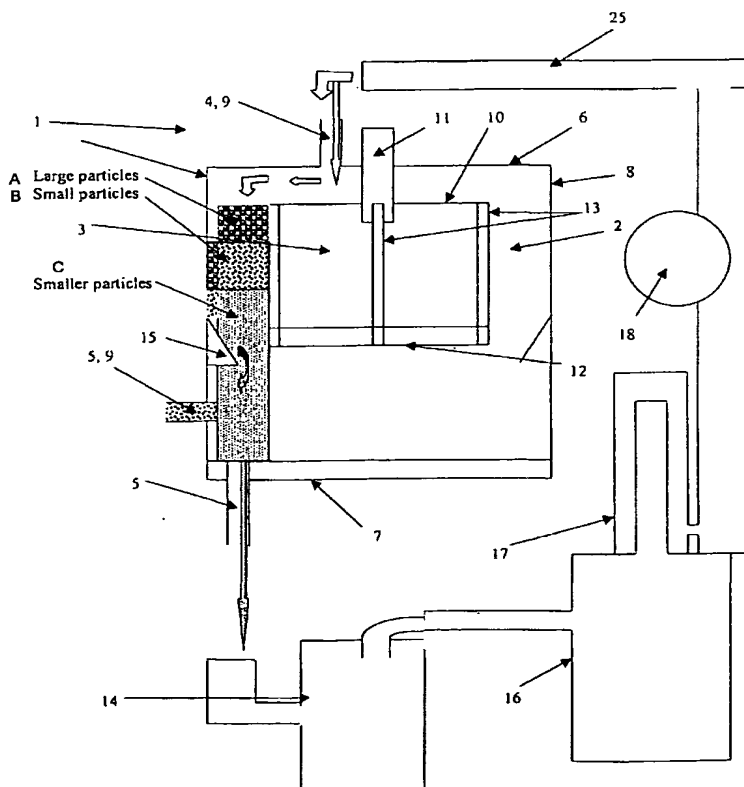
(75) Inventors/Applicants (for US only): **MORRISON,
Michael, Joseph** [AU/AU]; 18 Grand Panorama Court,
Launching Place, Victoria 3139 (AU). **ANDRE, Axel,
Guenther** [AU/AU]; 19 Broughton Avenue, Croydon,
Victoria 3136 (AU).

(74) Agents: **ROBERTS, Mark, K et al.**; Davies Collison
Cave, 1 Nicholson Street, Melbourne, Victoria 3000 (AU).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

[Continued on next page]

(54) Title: PROCESSING APPARATUS AND METHODS



(57) Abstract: The invention relates to pro-
cessing apparatus and methods and in par-
ticular, but not exclusively, to an apparatus
that may be used to process a wide variety of
feed materials by one or more of milling or
grinding, mixing, blending, separation, dry-
ing and sterilisation. In a preferred embod-
iment there is provided a feed material pro-
cessing apparatus (1) comprising: a cham-
ber (2); at least one inlet (4) in flow commu-
nication to an upper region of the chamber
(2); a rotor (3) located within the chamber
(2) that is rotatable about a substantially ver-
tical axis by a rotation drive (11), wherein
the rotor (3) promotes a circulatory flow of
feed material and/or gas within the chamber
(2); at least one outlet (5) in flow commu-
nication from a lower region of the chamber
(2). Preferably the apparatus (1) comprises
at least one feature located laterally on the
rotor (3) to promote the circulatory flow.

WO 2005/068061 A1



(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *with international search report*